

# INTERNATIONAL SEARCH REPORT

B2004/050850

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H04L9/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 518 315 A (MITSUBISHI ELECTRIC CORP) 16 December 1992 (1992-12-16) abstract column 7, line 4 - column 9, line 32; figures 1,2	1,4,9, 11,16
A	EP 1 191 737 A (AMPHION SEMICONDUCTOR LTD) 27 March 2002 (2002-03-27) abstract paragraph '0021! - paragraph '0031!; figure 3	1,4, 9-11,16
A	US 2002/131588 A1 (YANG YOON SEOK) 19 September 2002 (2002-09-19) abstract paragraph '0032! - paragraph '0058!; figures 2,6	1,11
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

2 September 2004

Date of mailing of the international search report

17/09/2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>SUTHERLAND I E: "MICROPIPELINES" COMMUNICATIONS OF THE ASSOCIATION FOR COMPUTING MACHINERY, ASSOCIATION FOR COMPUTING MACHINERY. NEW YORK, US, vol. 32, no. 6, 1 June 1989 (1989-06-01), pages 720-738, XP000256681 ISSN: 0001-0782 page 1, left-hand column, line 1 - right-hand column, line 4 page 4, left-hand column, line 4 - page 5, left-hand column, line 10; figure 3 -----</p>	2,6,12

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 0518315	A	16-12-1992	JP	2862030 B2	24-02-1999
			JP	4365240 A	17-12-1992
			DE	69222090 D1	16-10-1997
			DE	69222090 T2	26-03-1998
			EP	0518315 A2	16-12-1992
			US	5488661 A	30-01-1996
			US	5261003 A	09-11-1993
EP 1191737	A	27-03-2002	EP	1191737 A2	27-03-2002
			US	2002041685 A1	11-04-2002
US 2002131588	A1	19-09-2002	KR	2002061718 A	25-07-2002